

# Assessing Speaking Self-Efficacy: Constructing a Scale

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**Abstract** Since Albert Bandura first started writing about self-efficacy and its predictive value on human functioning, extensive research supporting his self-efficacy theory has been conducted in several fields, such as educational psychology, health, medicine, and athletics. It is just within the past ten years, however, that self-efficacy has become a topic of research within the field of foreign language learning. Although research has been initiated, it has not been abundant and the field continues to suffer from an overall lack of good instrumentation by which to measure self-efficacy. The purpose of this paper is to provide an overview of the assessment of speaking self-efficacy within the context of English as a Foreign Language (EFL). This overview will consist of a clear definition of the construct, examples of assessment of self-efficacy in past literature, guidelines for writing an assessment instrument for speaking self-efficacy, and finally a completed instrument assessing the construct. This instrument will be utilized to measure self-efficacy in a group of students who will be studying abroad.

**Keywords:** self-efficacy, motivation, research instrumentation

## スピーキングにおける自己効力の評価

ランス ブロース

**要旨** Albert Bandura が自己効力、そして人間の行動におけるその予想される有用性について執筆し始めて以来、彼の自己効力理論を支持する広範囲にわたるリサーチが様々な分野、例えば教育心理学、医学、体育理論において行われた。しかしながら自己効力が外国語学習の分野でリサーチの話題になったのはわずか10年ほどにすぎない。リサーチは始められたものの十分なものとはいえない。そしてこの分野では全体的に自己効力を測定するのにふさわしい方法を見出せないでいる。本稿の目的は外国語として英語を使う状況においてスピーキングにおける自己効力の全体的な測定評価を提示することである。この概観では構成概念の明白な定義、過去の論文における自己効力の評価例、スピーキングにおける自己効力のための評価方法を書くための基準、構成概念を評価する完成された方法から構成されている。今回作成したアンケートは、海外留学をする学生の自己効力感を測定する手段として使用する。

**キーワード：**自己効力、モチベーション、測定評価

## Introduction

Since the publication of the social cognitivist, Albert Bandura's (1977) seminal article entitled "Self-Efficacy: Toward a Unifying Theory of Behavioral Change," researchers from many fields (i.e., educational psychology, health, medicine, athletics, business, international affairs, psychopathology, and social and political change) (Pajares, 1996) have employed self-efficacy to predict and describe a wide range of human functioning. There is evidence to suggest that self-efficacy can predict such varied achievements as academic achievements, social skills, smoking cessation, pain tolerance, athletic performances, career choices, assertiveness, coping with feared events, recovery from illnesses, and sales performance (Bandura, 1986). Embedded within his social cognitive theory, self-efficacy has received increasing attention in the area of academic motivation and achievement (Pintrich & Schunk, 2002; Schunk, 2004; Bandura, 1986). In his most recent book dealing with self-efficacy, Bandura (1997) details the importance of this construct and its influence on human behavior, "People make causal contributions to their own psychosocial functioning through mechanisms of personal agency. Among the mechanisms of agency, none is more central or pervasive than beliefs of personal efficacy. Unless people believe they can produce desired effects by their actions, they have little incentive to act. Efficacy belief, therefore, is a major basis of action. People guide their lives by their beliefs of personal efficacy" (p. 2).

The purpose of this paper is to outline the rationale behind creating a self-efficacy scale to be used to measure the speaking self-efficacy of a group of Japanese students who will be traveling to a non-English speaking country to participate in a short-term EFL study abroad program (Burrows, 2009). This paper will include a clear definition of the construct, examples of assessment of self-efficacy in past literature, guidelines for writing an assessment instrument for speaking self-efficacy, and finally a completed instrument assessing the construct.

## Overview of Self-Efficacy Research

### *Self-Efficacy Theory*

The theoretical basis of Bandura's self-efficacy theory and all its current implications, actually derives from Bandura's (1977) seminal article, "Self-Efficacy: Toward a Unifying Theory of Behavioral Change." In this article, Bandura defined self-efficacy as the strength of expectations individuals maintain about their ability to

perform successfully a behavior that will lead to a particular outcome. Individuals' level of self-efficacy will influence "whether certain (coping) behaviors will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and aversive experiences" (Bandura, 1977, p. 191). Within the framework of this theory, judgments of self-efficacy are task and domain specific. Those who hold a low sense of self-efficacy for accomplishing a particular task within a particular domain may avoid it, while those who have a higher sense of self-efficacy would be more apt to participate readily in the completion of the task.

Within his self-efficacy theory, Bandura (1977) also hypothesized the sources of self-efficacy. According to him, there are basically four principle sources of information that help one create a sense of self-efficacy pertaining to a specific task and domain: *performance accomplishments*, *vicarious experiences*, *verbal persuasion*, and *physiological states*. In other words, people base the level of confidence they have in regarding a particular behavior, on an aggregate reading of these four elements.

Judged to be the most influential gauge of self-efficacy, performance accomplishments are especially important because they are based on personal mastery experiences. Successes tend to increase one's sense of self-efficacy while failures lower it.

Although exerting a weaker influence on the formation of self-efficacy than performance accomplishments, vicarious experiences are also an important source of self-efficacy information. People do not rely solely on their own mastery experiences to develop their self-efficacy. They are influenced by seeing others perform particular activities as well. Certain conditions enhance the value of a vicarious experience; the more similar the observer feels he is to the model, the more influence the vicarious experience will have on the observer's self-efficacy. Model behavior that exhibits clear outcomes conveys more efficacy information than if the effects of the modeled actions remained unclear. Furthermore, diversified modeling, in which the performance is re-enacted several times by a variety of models, is superior to exposure to the same performance by a single model.

Also influencing self-efficacy is verbal persuasion, in which people are guided, through suggestion, into believing they are capable or incapable of performing a particular task. The impact that verbal persuasion has on self-efficacy is likely to be weaker than that arising from one's own accomplishments because verbal persuasion is not derived from an authentic experience.

The last element of self-efficacy information is physiological states. People

sometimes rely on their physiological reactions to particular situations to lead them and their level of self-efficacy. As one experiences a fear reaction, such as an increased heart rate, induced sweating, or hyperventilation, one would likely expect failure more than success in that particular situation. “Because high arousal usually debilitates performance, individuals are more likely to expect success when they are not beset by aversive arousal than if they are tense and viscerally agitated” (Bandura, 1977, p.198).

### *Self-efficacy in Foreign Language Research*

Although researchers from many fields (i.e., educational psychology, health, medicine, athletics, business, international affairs, psychopathology, and social and political change) (Pajares, 1996) have employed self-efficacy to predict and describe a wide range of human functioning, research in the field of foreign languages remains limited. In the early 1990’s a collective criticism rose from the field of SLA referring primarily to Gardner’s (1985) Socio-Educational Model (Crookes & Schmidt, 1991; Oxford & Shearin, 1994; Dörnyei, 1994). There was a general consensus among several researchers in the field that research in L2 learning had been restricted by a narrow perspective on motivation. Recommendations that researchers begin to consider non-L2 approaches to motivation were voiced. In response to these calls, Tremblay and Gardner (1995) investigated the implication of self-efficacy and its role in L2 motivation. A sample of 75 French language students in a francophone secondary school completed questionnaires designed to measure various motivational and attitudinal factors. In addition to these measures, they completed an essay in French. Final grades for the French class were accepted as a measurement of achievement in the study. The results of the study supported the hypothesis that self-efficacy has a direct effect on motivational behavior which subsequently has a direct relation to achievement.

Another study (Hsieh & Schallert, 2008), considered the two constructs, self-efficacy and attribution in the domain of foreign language learning. 500 students in Spanish, German and French courses were first given class test scores and asked if the scores represented a success or failure on the part of the student. Thereafter, the students were also asked to rate their self-efficacy and attribution based on the scores. The study supported the hypothesis that in predicting achievement, self-efficacy was the most powerful predictor. Ability attributions were considered significant but not as strong as self-efficacy. It was also found that students who attributed failure to

lack of effort held a higher sense of self-efficacy than those who attributed failure to other factors such as ability, task difficulty, and luck. Although a direct link between self-efficacy and achievement was not realized in the study conducted by Tremblay and Gardner, this study showed a relation.

These attributions to success and failure were also evident in a study by Graham (2004). In this qualitative study, Graham showed that students who attributed success to effort, high ability and effective learning strategies had higher levels of achievement. She detailed the relation between one's ability to manipulate learning strategies as a source of higher self-efficacy. On the contrary, low ability and task difficulty were blamed by most for lack of achievement in French. Graham maintains that if learners could be educated on the use of language strategies and their link to academic performances, learners may start to change the attributions they hold for successes and failures, thereby changing their self-efficacy.

In another study, conducted through questionnaires and interviews, Graham (2006) noticed that most students with high self-efficacy credited both successes and failures to either an ample expenditure of effort or a lack of it, respectively. Those who considered themselves to be less efficacious tended to blame their failures more on external forces like task difficulty, luck and ability.

Also embedded within the field of foreign languages, research has been conducted on the connection that study abroad has on self-efficacy. Carlson, Burn, Useem, & Yachimowicz (1990), investigated the impact that study abroad has on such topics as education, career, personal satisfaction, and cultural values. Undergraduates in four U.S. college and university programs involving nearly thirty European institutions were chosen for the study. The focus of the research is the role of study abroad in students' acquisition of foreign language proficiency, knowledge of and concern for foreign cultures and international issues, attitudes toward their home country and its values, and career objectives and accomplishments. Student profiles indicate consistent patterns in motivation, achievement, and satisfaction that relate to the experience abroad.

The results of the study showed strong factor loadings on two factors that the authors related to the self-efficacy construct, *attitudes toward self* and *sociability*. However, the findings did not support the hypothesis that study abroad experience would significantly result in increased levels of self-confidence and sociability. One of the reasons attributed to this failure would be the scales that were used in the study.

Taken from Susan Harter's (1978) work on effectance motivation, the items of the scale, which were originally written for children, had to be revised. Many of the items also talked about attitudes toward self and sociability that might not change due to study abroad. They seem to be items that are almost trait-like in nature. For example, "Some students are very happy being the way they are." or "Some people are sure that what they are doing is the right thing." The items tend to be slightly ambiguous and lacking in any strong relevance to the underlying construct that was being studied.

In the rationale of the study given to explain the usage of the instrument, the authors explained, "Harter has developed a differentiated set of scales that assess cognitive, social, and physical competence. Each of these domains can be divided into specific sub-domains. In the present study, we chose to focus on social competence, or what we term personal self-efficacy. The reason for this is that we consider this dimension of one's perception of self to be particularly relevant for study abroad students" (Carlson et al., 1990, p. 24). There does not seem to be any clear connection between the items of the scale and the construct being studied, which in itself remains somewhat unclear. There were no explicit definitions of the self-efficacy construct, as perceived by the researchers in this study.

### **Guidelines for Assessing Self-Efficacy and Creating Self-Efficacy Scales**

As was encountered in the Carlson et al. (1990) study, problems with the instrument of assessment can lead to distorted results. To prevent these types of problems from occurring, a review of literature on self-efficacy assessment is provided.

In mainstream psychological research, self-efficacy has been conceptualized and studied from two different perspectives, a trait like concept called general self-efficacy (GSE) (e.g., Eden, 1988; Judge, Erez, & Bono, 1998) and a state like concept called specific self-efficacy (SSE) (e.g., Gist & Mitchell, 1992; Wood & Bandura, 1989). Wood and Bandura (1989) defined specific self-efficacy as "beliefs in one's capabilities to mobilize the motivation, cognitive responses, and course of action needed to meet given situation demands." On the other hand, Judge, et al. (1998, p. 170) defined GSE as "individuals' perception of their ability to perform across a variety of different situations." Chen, Gully, and Eden noted, "GSE captures differences among individuals in their tendency to view themselves as capable of meeting task demands in a broad array of contexts" (2001, p. 63).

Research has shown that GSE has a positive influence on SSE across tasks and

domains (Eden, 1988). This positive relationship between GSE and SSE for a variety of performances seems to “spill over” into specific situations (Shelton, 1990; Sherer et al., 1982). Because of this, those with a high GSE are expected to be more apt to succeed across a variety of domains.

To gain a reference of the types of questions asked on GSE research instruments, a review of Sherer et al. (1982) General Self-Confidence Scale (SGSES) is offered below. The SGSES is comprised of two subscales: a General Self-efficacy subscale (17 items) and a Social Self-efficacy subscale (6 items). (See Table 1)

**Table 1.** *Factors from Self-efficacy Scale (Sherer et al., 1982)*

Items
Factor 1. General Self-efficacy
1. When I make plans, I am certain I can make them work.
2. One of my problems is that I cannot get down to work when I should. (R)
3. If I can't do a job the first time, I keep trying until I can.
4. When I set important goals for myself, I rarely achieve them. (R)
5. I give up on things before completing them. (R)
6. I avoid facing difficulties. (R)
7. If something looks too complicated, I will not even bother to try it. (R)
8. When I have something unpleasant to do, I stick to it until I finish it.
9. When I decide to do something, I go right to work on it.
10. When trying to learn something new, I soon give up if I am not initially successful. (R)
11. When unexpected problems occur, I don't handle them well. (R)
12. I avoid trying to learn new things when they look too difficult for me. (R)
13. Failure just makes me try harder.
14. I feel insecure about my ability to do things. (R)
15. I am a self-reliant person.
16. I give up easily. (R)
17. I do not seem capable of dealing with most problems that come up in life. (R)
Factor 2. Social Self-efficacy
1. It is difficult for me to make new friends. (R)
2. If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.
3. If I meet someone interesting who is hard to make friends with, I'll soon stop trying to make friends with that person. (R)
4. When I'm trying to become friends with someone who seems uninterested at first, I don't give up easily.
5. I do not handle myself well in social gatherings. (R)
6. I have acquired my friends through my personal abilities at making friends.

*Note.* - (R) denotes items recoded in direction of high self-efficacy.

As can be seen from the instrument, the items reflect GSE factors. Although it may be believed by some that these types of items will work well in predicting human functioning in relation to foreign language motivation, the author is not convinced that these questions best target the predictive elements in speaking self-efficacy in the EFL context.

The author agrees with Wood & Bandura (1989) in claiming that SSE instruments will be better able to predict human functioning in relation to foreign language education. In agreement with the basic tenets of Bandura's self-efficacy theory (1977), the items used in the instrument to measure speaking self-efficacy should be task and domain specific.

Bandura (2006) has offered a set of guidelines to be followed when creating scales for self-efficacy measurement. These guidelines have been teamed up with factors and situations that will be presumably be encountered by study abroad students. As was mentioned in the introduction, the purpose of this scale (see Appendix 1) and its creation is to provide the author with a measurement instrument to gauge the speaking self-efficacy of a group of Japanese students who will be traveling to a non-English speaking country to participate in a short-term EFL study abroad program (Burrows, 2009). The guidelines are as follows:

1. Content validity: Firstly, items should reflect the construct under investigation. In Bandura's definition (1986) of self-efficacy, the term self-efficacy is concerned with perceived capability. Therefore, items should be termed using such expressions as "can do" rather than "will do." He also warns against confusing other constructs with self-efficacy. Self-esteem, for example, refers to one's worth, whereas self-efficacy is a judgment of capability. Also, locus of control refers to belief about outcome contingencies-whether outcomes are determined by one's actions or by forces outside of one's control.
2. Items on the instrument should be based on a good conceptual analysis of the relevant domain of functioning. In this case, EFL is the domain. Reading, writing, listening, and speaking EFL tasks will be specified in the items. Items should be specific to both the EFL domain and the specific skill being targeted.
3. The items should be ordered in a gradation of challenge. Personal influence and the challenge of the items may be influential in regulating one's own motivation, thought processes, performance level, emotional states, or altering environmental conditions. It should be clear in the items which one of these domains is being targeted.
4. The items of the instrument should reflect varying levels of task demands. It is recommended that participants rate the strength of their belief in their ability to execute the mentioned activities. The scale runs from 0 (cannot do



at all) to 50 (moderately certain can do) to 100 (highly certain can do). Although this scale is recommended to increase the sensitivity of the instrument, it is believed by the author that maintaining a 0-100 scale will not be effective for offering accurate results from this study. A scale of 0-5 will offer a much better graded scale for administering the same survey multiple times over the course of the longitudinal study to be conducted on the group of Japanese study abroad students (details can be found in Burrows, 2009).

#### *Completed Speaking Self-Efficacy Scale*

With these recommendations and the purposes of the ensuing study in mind, the author has designed a speaking self-efficacy scale. It was adapted from a similar questionnaire provided by Carlson et al. (1990, p. 153-55) (See Appendix 1). Carlson et al. (1990) conducted research on students who were participating in a study abroad program so the relevance of the items to the author's future study is very high.

### **Conclusion**

Since the publication of the social cognitivist, Albert Bandura's (1977) seminal article, where he introduced his theory of self-efficacy, extensive research has been conducted and strongly supported Bandura's theory of self-efficacy's predictive nature in human functioning (i.e., educational psychology, health, medicine, athletics, business, international affairs, psychopathology, and social and political change) (Pajares, 1996). Although research in self-efficacy has been relatively limited in the foreign language field, recent literature shows a new interest in the theory and its possible connections to Second Language Acquisition (SLA). In this paper, I have aimed to offer a comprehensive overview of the self-efficacy construct. Through examination of relevant literature, I have also offered guidelines in constructing an assessment instrument for speaking self-efficacy. Finally, I have offered an example of a completed instrument for speaking self-efficacy. The completed scale will be used in a later study to measure the speaking self-efficacy of a group of Japanese students who will be traveling to a non-English speaking country to participate in a short-term EFL study abroad program.

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**Appendix**

## Completed self-efficacy scale

EFL self-efficacy scale for speaking**Speaking self-efficacy**

A number of situations are described below about speaking in English. Please rate in each of the blanks in the column how certain you are that you can speak and make yourself understood in each situation.

0	1	2	3	4	5
cannot do at all			moderately can do		highly certain can do

Speaking situation	Confidence (0-5)
1. Say the day of the week	_____
2. Order a simple meal in a restaurant	_____
3. Introduce yourself at a party using appropriate greetings and leave-taking expressions	_____
4. Describe your present job or situation as a student, using appropriate vocabulary and grammar	_____
5. Tell what you plan to be doing five years from now, using appropriate vocabulary and grammar	_____
6. State and support an opinion you might have on a controversial issue (environmental pollution, stance toward North Korea)	_____
7. Describe your country's political system in detail	_____